

Chapter 5

Sources of Further Information

5-1. Finite Element Codes Used in the Analysis of Past Corps of Engineers Geotechnical Projects

Table 2 lists the finite element codes which have been used in the past on Corps' projects. The table also lists the applications and office symbols at the Waterways Experiment Station where further information can be obtained about each code.

5-2. References

A list of selected references has been compiled in the bibliography for purposes of assisting design engineers with their finite element analyses. The list is by no means intended to be complete but is intended to provide finite element users with places to go to get started with applying the finite element method to a given problem in geotechnical engineering. The list was compiled with a focus toward the collection of sample problems to aid a designer in becoming

familiar with the methods used by other analysts to solve similar problems. The list is divided into seven categories which includes selected references on:

- a) Text books and general references.
- b) Embankment dams.
- c) Constitutive models.
- d) Seepage analysis.
- e) Soil-structure interaction analysis.
- f) Reinforced earth analysis.
- g) Consolidation.
- h) Dynamic analysis of embankment dams.

a. Text books and general references.

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Table 2. Finite Element Codes Used In Analysis of Corps Geotechnical Projects

Code Name	Geometry	Applications	Source/s for further Information
STUBBS	Plane strain Axisymmetric	Statics, Soil-structure Interaction, Consolidation, Transient Seepage	CE-WES-GS-GC
SOILSTRUCT	Plane strain	Statics, Soil-structure interaction	CE-WES-IM-DI
FEADAM	Plane strain	Static analysis of earth embankments	CE-WES-IM-DI
FLUSH	Plane strain	Earthquake analysis, dynamic soil structure interaction	CE-WES-GS-GC
TARA	Plane strain	Earthquake analysis	CE-WES-GG-H
CSEEP	Plane flow Plan view flow Axisymmetric	Steady state seepage	CE-WES-IM-DI
CSEEP3D (Tracy 1991)	3-D flow	Steady state seepage	CE-WES-IM-DI CE-WES-GS-R

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